

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-24: (Cancelled)

Claim 25: (Currently Amended)

Transport system for substances containing hybrid particles (2) comprising at least one layer of lipid molecules (3) and at least one via a spacer unit (4) bonded ligand, which ligand is a peptide (5), which wherein the peptide has a specific sequence for selective transport purposes and the selectively transported liposome transports at least one micro-nutrient wherein at least one polymerisable group (9) is incorporated in the hybrid particles (2).

Claim 26: (Previously Presented)

Transport system according to claim 25, wherein the lipid molecule (3) is bonded to the at least one ligand via a spacer unit (4).

Claim 27: (Previously Presented)

Transport system according to claim 26, wherein the spacer unit (4) is made up of amino acids, a chemically inert substance, for example nano-particles such as carbon nano-tubes, nano-threads, colloids, etc..

Claim 28: (Previously Presented)

Transport system according to claim 25, wherein the lipid molecules (3) are polymerisable lipids and/or "natural" lipids, for example, such as steroids, glycolipids, phospholipids, sphingolipids, poly-isoprenoids, etc..

Claim 29: (Previously Presented)

Transport system according to claim 25, wherein the peptide (5) is an oligopeptide (6).

Claim 30: (Previously Presented)

Transport system according to claim 29, wherein the oligopeptide (6) has a length selected from a range with a lower limit of 4 amino acids, preferably 5 amino acids, in particular 6 amino acids, and an upper limit of 18 amino acids, preferably 20 amino acids, in particular 22 amino acids.

Claim 31: (Previously Presented)

Transport system according to claim 29, wherein the oligopeptide sequence is complementary to the sequence of a receptor on a cell.

Claim 32: (Previously Presented)

Transport system according to claim 29, wherein the oligopeptide (6) has a sequence selected from a group comprising the sequences Gly-Arg-Gly-Asp-Ser-Pro (SEQ ID NO: 1), Tyr-Ile-Glu-Ser-Arg (SEQ ID NO: 2) and/or Ala-Asp-Gly-Glu-Ala (SEQ ID NO: 3).

Claim 33: (Previously Presented)

Transport system according to claim 29, wherein the oligopeptide (6) has a sequence, selected from a group comprising the sequences Val-Arg-Leu-Leu-Asn-Asn (SEQ ID NO: 4), Val-Arg-Leu-Leu-Asn-Asn-Trp-Asp (SEQ ID NO: 5), Gly-Arg-Val-Arg-Leu-Leu-Asn (SEQ ID NO: 6), Met-Thr-Ala-Gly-Ala-Gly (SEQ ID NO: 7), Leu-Ser-Gly-Ala-Leu-Arg (SEQ ID NO: 8), Ile-Val-Ala-Ile-Leu-Ile-Cys-

Ile-Leu-Ile-Leu-Leu-Thr-Met-Val-Leu-Leu-Phe-Val-Met-Trp-Met (SEQ ID NO: 9), Ile-Val-Ala-Ile-Leu-Ile-Cys-Ile-Leu-Ile-Leu (SEQ ID NO: 10), Ile-Val-Ala-Ile-Leu-Ile-Cys-Ile-Leu-Ile-Leu-Thr-Met-Val-Leu-Phe (SEQ ID NO: 11), Ile-Val-Ala-Ile-Leu-Ile (SEQ ID NO: 12), Cys-Ile-Leu-Ile-Leu (SEQ ID NO: 13), Thr-Met-Val-Leu-Leu-Phe (SEQ ID NO: 14) and/or Leu-Phe-Val-Met-Trp-Met (SEQ ID NO: 15).

Claim 34: (Previously Presented)

Transport system according to claim 25, wherein the hybrid particles (2) form 3-dimensional structures, such as vesicles, micro-spheres, nano-particles, tubes, etc..

Claim 35: (Previously Presented)

Transport system according to claim 25, wherein at least one polymerisable group (9) is incorporated in the hybrid particles (2).

Claim 36: (Previously Presented)

Transport system according to claim 25, wherein the at least one micro-nutrient is at least one substance selected from a group comprising provitamins, vitamins, minerals and trace elements, amino acids, fatty acids, polyphenols, hormones and organ extracts or their synthesis products, such as pancreatin, galenic acid, cartilaginous base substance, etc..

Claim 37: (Previously Presented)

Transport system according to claim 25, wherein the vitamin is selected from a group comprising natural and synthetic compounds with a retinoid structure (vitamin A), vitamin B complex, ascorbic acids (vitamin C), calciferols (vitamin D), tocopherols (vitamin E), vitamin K, flavonoids and biotin.

Claim 38: (Previously Presented)

Transport system according to claim 25, wherein the at least one vitamin is selected from a group comprising retinol, retinyl acetate, retinyl palmitate, 3,4-didehydroretinol (vitamin A2), retinal, retinic acid and provitamins, such as  $\alpha$ -,  $\beta$ -,  $\gamma$ -carotin, lutein, zeaxanthin, thiamin (vitamin B1) or thiamin hydrochloride or thiamin monomitrate, riboflavin (vitamin B2) or sodium-riboflavin-5-phosphate, niacin (vitamin B3) or nicotinic acid or neacin, pantothenic acid (Vitamin B5) or calcium-D-pantothenate or sodium-D-pantothenate or D-panthenol, pyridoxin (vitamin B6) or pyridoxin hydrochloride or pyridoxin-5-phosphate or pyridoxin dipalmitate or pyridoxal phosphate, folic acid (vitamin B9) or pteroyl glutamic acid, cobalamin (vitamin B12) or cyano-cobalamin or hydroxycobalamin, biotin, choline, inosit and p-aminobenzoic acid, L-ascorbic acid, sodium-L-ascorbate, calcium-L-ascorbate, potassium-L-ascorbate and L-ascorbyl-6-Palmitate, ergocalciferol (vitamin D2), cholecalciferol (vitamin D3), 1,25-dihydroxycholecalciferol and the provitamins ergosterol or 7-dehydrocholesterol, D- $\alpha$ -tocopherol, DL- $\alpha$ -tocopherol, D- $\alpha$ -tocopheryl acetate, DL- $\alpha$ -tocopheryl acetate and D- $\alpha$ -tocopheryl acid succinate, phylloquinone (vitamin K1), menoquinone (vitamin K2), menadion (vitamin K3) and menadione hydroxiquinone (vitamin K4).

Claim 39: (Previously Presented)

Transport system according to claim 25, wherein the at least one mineral and the at least one trace element are selected, according to their importance for the organism, from a group comprising Na, K, Mg, Ca, Fe, I, Cu, Mn, Zn, Co, Mo, Se, Cr, F, Si, Ni, As, Sn, V, P, Cl, B, Al and Br.

Claim 40: (Previously Presented)

Transport system according to claim 25, wherein the at least one component is selected from a group comprising coenzyme Q-10,

quercetin, bromelain, inositol, choline, pycnogenol, carnitine, taurine, mesoinosit.

Claim 41: (Previously Presented)

Transport system according to claim 25, wherein the at least one essential amino acid is selected from a group comprising histidine, isoleucine, leucine, lysin, methionine, phenyl alanine, threonine, tryptophan, valine and arginine.

Claim 42: (Previously Presented)

Transport system according to claim 25, wherein the at least one fatty acid is selected from a group comprising linoleic acid, linolenic acid and arachidonic acid.

Claim 43: (Previously Presented)

Method of transporting active substances, wherein the transport system according to claim 25 is used.

Claim 44: (Previously Presented)

Transport system according to claim 25 for use as a medicament.

Claim 45: (Previously Presented)

Use of the transport system according to claim 44 for producing a medicament for the treatment of nutritional deficiencies.

Claim 46: (Previously Presented)

Use of the transport system according to claim 45 for topical and oral application.

Claim 47: (Previously Presented)

Use of the transport system according to claim 25, wherein it is used in the pharmaceutical and food industry.